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Amendment to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A computer-implemented method of displaying device port information in a network topology display, comprising:

displaying a device node in the network topology display, the displayed device node representing a connection device in a network, the connection device having one or more connection ports for connecting to one or more devices in the network;

displaying one or more connection paths coupled to the displayed device node, the connection paths representing connections to the one or more ports of the connection device; and

selectively expanding the displayed device node in response to a user selection of the device node, wherein the expanded node simultaneously displays ~~includes~~ port information for each of the one or more ports having a connection to another device in the network.

2. (original) The computer-implemented method of claim 1, wherein the displayed device node represents a connection device selected from the group consisting of a switch, a hub, and a router.

3. (original) The computer-implemented method of claim 1, wherein the port information includes the port number.

4. (original) The computer-implemented method of claim 1, wherein the port information includes a port connection type indicator.

5. (previously presented) The computer-implemented method of claim 1, wherein the selectively expanding includes displaying a connection bar and displaying the port information proximal the connection bar for the one or more ports having a connection.

6. (original) The computer-implemented method of claim 5, wherein the displayed port information for each port is displayed proximal the connection bar in a

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location indicating the relative location of the corresponding connected device in the network topology display.

7. (original) The computer-implemented method of claim 1, wherein the displayed device node represents the connection device and one or more devices connected to the connection device.

8. (currently amended) A computer-implemented method of displaying device port information in a network topology display, comprising:

displaying a device node in a network topology display, the displayed device node representing a connection device in a network, the connection device having one or more connection ports for connecting to one or more devices in the network;

displaying one or more connection paths coupled to the displayed device node, the connection paths representing actual network connections to the one or more ports of the connection device; and

responsive to a user selection of the device node, simultaneously displaying port information for each of the one or more ports having an actual connection to another device in the network corresponding to the displayed connection paths, wherein the displayed port information comprises a port number and a port connection type indicator.

9. (original) The computer-implemented method of claim 8, wherein the displayed device node represents a connection device selected from the group consisting of a switch, a hub, and a router.

10. (canceled)

11. (canceled)

12. (original) The computer-implemented method of claim 8, wherein displaying port information includes displaying a connection bar and displaying the port information proximal the connection bar for each of the one or more ports having an actual connection.

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13. (original) The computer-implemented method of claim 12, wherein the displayed port information for each port is displayed proximal the connection bar in a location indicating the relative location of the corresponding connected device in the network topology display.

14. (original) The computer-implemented method of claim 8, wherein the user selection is performed by the user using a computer mouse.

15. (original) The computer-implemented method of claim 8, wherein the user selection includes selecting the displayed device node with a user input device.

16. (original) The computer-implemented method of claim 8, wherein the user selection includes selecting a show ports option from a menu of options.

17. (original) The computer-implemented method of claim 16, further comprising displaying the menu of options in response to a user selection of the displayed device node.

18. (original) The computer-implemented method of claim 8, further comprising removing the displayed port information from the display in response to a user selection to remove port information.

19. (original) The computer-implemented method of claim 8, wherein the displayed device node represents the connection device and one or more devices connected to the connection device.

20. (currently amended) A computer readable medium containing instructions for controlling a computer system to selectively display device port information for a connection device in a network topology display, by:

displaying a device node in a network topology display, the displayed device node representing a connection device in a network, the connection device having connection ports for connecting to one or more devices in the network;

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displaying one or more connection paths coupled to the displayed device node, the connection paths representing actual network connections to the one or more ports of the connection device; and

responsive to a user selection of the device node, simultaneously displaying port information for each of the ports, the port information comprising an indication of the ports having an actual connection to another device in the network and the ports having no connection.

21. (original) The computer readable medium of claim 20, wherein the connection device is one of a switch, a hub and a router.

22. (original) The computer readable medium of claim 20, wherein the network is a storage area network (SAN).

23 (original) The computer readable medium of claim 20, wherein the instructions for displaying port information includes instructions for displaying a connection bar and displaying the port information proximal the connection bar for each of the one or more ports having an actual connection.

24 (original) The computer readable medium of claim 23, wherein the instructions for displaying the port information include instructions for displaying the port information for each port proximal the connection bar in a location so as to indicate the relative location of the corresponding connected device in the network topology display.

25. (currently amended) A method for displaying device port information in a network topology display, comprising:

displaying a network topology display comprising device node representing a connection device in a physical network, the connection device comprising a plurality of connection ports for connecting to other devices in the network;

in the network topology display, displaying one or more connection paths coupled to the displayed device node, the connection paths representing connections from the other devices to a portion of the connection ports of the connection device;

receiving a user selection of the device node in the network topology display; and

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in response to the receiving of the user selection, modifying the displayed network topology display to include an expanded view of the displayed device node, wherein the expanded view simultaneously displays ~~includes~~ port information for the portion of the connection ports having the connection paths to the other devices in the network and wherein the port information for the portion of the connection ports is displayed in locations in the expanded view indicating relative locations in the network topology display of the other devices connected to the device node.

26. (previously presented) The method of claim 25, wherein the port information corresponding to the portion of the connection ports is displayed within the expanded view at elevations corresponding to elevations in the network topology display of the other devices connected to the device node.

27. (previously presented) The method of claim 25, wherein the expanded view further comprises port information for the connection ports of the device node that are not connected to the other devices in the network.

28. (previously presented) The method of claim 25, wherein the port information is selected from a group of port information consisting of a port number, a port type, and a port state.

29. (previously presented) The method of claim 28, further comprising receiving a user-input configuration request defining a subset of the group of port information to be included in the displayed port information, and wherein the displayed port information is configured to comprise the subset.

30. (currently amended) A method comprising:

displaying a network topology display including device nodes and one or more connection paths connecting the device nodes, each displayed device node representing a connection device in a network, each connection device having one or more connection ports for connecting to other devices in the network, each connection path representing at least one communicative connection between a connection port of a connection device and another device in the network;

detecting a user input event associated with the network topology display; and

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modifying the network topology display to expand one of the displayed device nodes in the network topology display responsive to the operation of detecting a user input event, the expanded displayed device node simultaneously displaying a plurality of port information indicators not displayed by the displaying operation, each port information indicator representing an individual connection port of the connection device represented by the displayed device node and one or more of the port information indicators representing a connection port of the connection device having a communicative connection to another device in the network.

31. (currently amended) A computer-readable medium having computer-executable instructions for performing a computer process, the computer process comprising:

displaying a network topology display including device nodes and one or more connection paths connecting the device nodes, each displayed device node representing a connection device in a network, each connection device having one or more connection ports for connecting to other devices in the network, each connection path representing at least one communicative connection between a connection port of a connection device and another device in the network;

detecting a user input event associated with the network topology display; and

modifying the network topology display to expand one of the displayed device nodes in the network topology display responsive to the operation of detecting a user input event, the expanded displayed device node simultaneously displaying a plurality of port information indicators not displayed by the displaying operation, each port information indicator representing an individual connection port on a connection device represented by the displayed device node, wherein one or more of the port information indicators represents individual connection ports of the connection device having a communicative connection to another device in the network.

32. (previously presented) The computer-readable medium of claim 31 wherein the computer process further comprises:

detecting another user input event associated with the network topology display;  
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modifying the network topology display to collapse the expanded displayed device node in the network topology display responsive to the operation of detecting another user input event, the collapsed displayed device node omitting display of the port information indicators.

33. (previously presented) The computer-readable medium of claim 31 wherein each displayed port information indicator representing a connection port having a communicative connection to another device in the network is graphically associated with a connection path representing the communicative connection.

34. (previously presented) The computer-readable medium of claim 31 wherein the expanded displayed device node displays a port information indicator for each connection port of the connection device having a communicative connection to another device in the network.

35. (previously amended) The computer-readable medium of claim 31 wherein the expanded displayed device node displays port information indicators for connection ports of the connection device having communicative connections to one or more other devices in the network and does not display port information indicators for connection ports of the connection device not having communicative connections to one or more other devices in the network.

36. (previously presented) The computer-readable medium of claim 31 wherein the expanded displayed device node displays a port information indicator for each connection port of the connection device having a communicative connection to another device in the network and for each connection port of the connection device not having a communicative connection to another device in the network.

37. (previously presented) The computer-readable medium of claim 31 wherein at least one port information indicator displays a port connection type indicator.

38. (previously presented) The computer-readable medium of claim 31 wherein at least one port information indicator displays a port number indicator.

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39. (previously presented) The computer-implemented method of claim 1 wherein the connection device comprises a plurality of connection ports for connecting to one or more devices in the network.